



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/557,035	04/21/2000	Ryoji Amemiya	SONY-TO488	6480

22850 7590 07/28/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

WANG, JIN CHENG

ART UNIT	PAPER NUMBER
----------	--------------

2672

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/557,035

Applicant(s)

AMEMIYA, RYOJI

Examiner

Jin-Cheng Wang

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's submissions filed on 4/25/2005 have been entered. Claims 1, 3, 7, 9, 13 and 14 have been amended. Claims 18-19 have been newly added. Claims 1-19 are pending in the application.

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection based on Martinez et al. U.S. Patent No. 6,137,468 (hereinafter Martinez), and further in view of Hoshino et al. U.S. Patent No. 6,396,506 (hereinafter Hoshino), Robbins et al. U.S. Patent No. 6,326,978 (hereinafter Robbins), Andrews U.S. Patent No. 6,122,682 (hereinafter Andrews) and Ignagni U.S. Patent No. 5,834,623 (hereinafter Ignagni). For example, Hoshino teaches the claim limitation of "means for setting a first mode in which all of a plurality of separate images configured to be displayed on the display screen are to be rotated, a second mode in which a selected image of the plurality of separate images is to be rotated, and a third mode in which none of the plurality of separate images are to be rotated." See Figs. 40-46 in relation to Figs. 1-39 and the corresponding specification in which a plurality of windows 350, as shown in Figs. 45-46, are rotated in accordance with the operating buttons 300a-300d of Fig. 40. The rotation of the images depends upon the selection of the operating buttons 300a-300d. Although Fig. 44 only shows one window, multiple windows can be found in Fig. 44 and column 19-20 wherein window B is displayed behind window A on a single display screen 2 and Fig. 46 wherein both windows A and window B are displayed on a

Art Unit: 2672

single display screen 2. The windows A and B in the single display screen 2 are rotated together by means of the operating buttons 300a-300d and a particular window is rotated by means of the picture direction change buttons 354a-354d and the selector button 355 and the rotate button 356 of Fig. 43 for the particular window A or B to rotate a particular window 350 displayed on Fig. 46. No rotation takes place while no selection request whatsoever on the display screen window 2 or the windows A, B inside the display screen window 2 being made by the user to rotate the images being displayed. Moreover, each window has a single image or a plurality of images such as those shown in Fig. 7c. Hoshino also teaches “means for selecting the selected image when the second mode is set” in which Hoshino teaches selecting the image in window A when the second mode is set, i.e., when the rotation selection is placed on a particular window rather than being placed on the display screen 2).

It would have been obvious to one of ordinary skill in the art to have incorporated the Hoshino's selection means into the Martinez's display device because Martinez suggests selecting an image (600) to be rotated and selecting an image (602) not to be rotated and therefore Martinez suggests the claim limitation of the selection means for selecting an image (See Figures 6A-6C). Martinez teaches selecting an image object such as the window 600 (Figures 6A-6C) to be rotated and not selecting the other image object such as 602. The image objects 600 and 602 are separate image objects, i.e., the image object 602 just overlays on the window 600, but not a part of the window and therefore the image objects 600 and 602 constitute a plurality of image objects as claimed. Martinez therefore teaches rotating one of the plurality of the image objects while not rotating one of the plurality of the image objects.

One having the ordinary skill in the art would have been motivated to do this because it would have provided a selection means so that a particular image can be selected to be rotated while other images remain unchanged in response to the display screen orientation (See Martinez Figures 6A-6C) and selection means so that user can manipulate the selected image object (Hoshino Figs. 40-46 and column 19-20; Robbins teaches the means of selecting an image displayed on a window of a plurality of separate images on a plurality of windows configured to be displayed on the display screen; Robbins Figs. 1-2 and column 3-4).

Andrews discloses a posture detecting means comprising a three axis-gyro sensor (column 7, lines 24-28).

It would have been obvious to have incorporated a three axis-gyro sensor of Andrews to the Martinez, Hoshino and Robbins's display device because Martinez discloses posture detecting means for detecting an angular component of a change of posture of the display screen (e.g., Martinez figures 5A-10; column 5, lines 5-39) and therefore suggests the use of a three-axis gyro sensor or other motion sensors.

One of the ordinary skill in the art would have been motivated do this to accurately measure the angular posture of the display device (Martinez figures 5A-10; column 5, lines 5-39) using the three orthogonal sensors (Ignagni column 11, lines 15-31).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2672

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martinez et al. U.S. Patent No. 6,137,468 (hereinafter Martinez), and further in view of Hoshino et al. U.S. Patent No. 6,396,506 (hereinafter Hoshino), Robbins et al. U.S. Patent No. 6,326,978 (hereinafter Robbins), Andrews U.S. Patent No. 6,122,682 (hereinafter Andrews) and Ignagni U.S. Patent No. 5,834,623 (hereinafter Ignagni).

4. Claim 1:

Martinez teaches an information processing apparatus (e.g., figure 2) comprising:

A display screen (e.g., figures 4A-4D; column 3, lines 5-25);

Posture detecting means for detecting an angular component of a change of posture of the display screen (e.g., figures 5A-10; column 5, lines 5-39);

Displaying direction control means for displaying the plurality of separate images on said display screen, and for controlling a direction of display of the selected image (figures 5A-6C) by rotating the selected image according to a rotation of said display screen determined by said posture detecting means (e.g., figure 5A-10; column 4, lines 40-50; column 5, lines 40-67; column 6, lines 1-67; column 7, lines 1-20) and not rotating at least one of the other of the plurality images (See Figures 6A-6C wherein the block 602 is not rotated while the window 600 is rotated according to the orientation of the display screen).

Martinez is silent to “means for setting a first mode in which all of a plurality of separate images configured to be displayed on the display screen are to be rotated, a second mode in which a selected image of the plurality of separate images is to be rotated, and a third mode in

Art Unit: 2672

which none of the plurality of separate images are to be rotated” and “means for selecting the selected image when the second mode is set.”

Hoshino teaches the claim limitation of “means for setting a first mode in which all of a plurality of separate images configured to be displayed on the display screen are to be rotated, a second mode in which a selected image of the plurality of separate images is to be rotated, and a third mode in which none of the plurality of separate images are to be rotated” (*See Figs. 40-46 in relation to Figs. 1-39 and the corresponding specification for a plurality of windows 350 shown in Figs. 45-46 are rotated in accordance with the operating buttons 300a-300d of Fig. 40 wherein the rotation of the images depend upon the selection of the operating buttons 300a-300d. Although Fig. 44 only shows one window, multiple windows can be found in Fig. 44 and column 19-20 wherein window B is displayed behind window A on a single display screen 2 and Fig. 46 wherein both windows A and window B are displayed on a single display screen 2. The windows A and B in the single display screen 2 are rotated together by means of the operating buttons 300a-300d and a particular window is rotated by means of the picture direction change buttons 354a-354d and the selector button 355 and the rotate button 356 of Fig. 43 to rotate a particular window 350 displayed on Fig. 46, no rotation takes place while no selection request whatsoever on the display screen window 2 or the windows A, B inside the display screen window 2 being made by the user to rotate the images. Moreover, each window has a single image or a plurality of images such as those shown in Fig. 7c). Hoshino also teaches “means for selecting the selected image when the second mode is set” (Selecting the image in window A when the second mode is set, i.e., when the rotation selection is placed on a particular window rather than being placed on the display screen 2).*

It would have been obvious to one of ordinary skill in the art to have incorporated the Hoshino's selection means into the Martinez's display device because Martinez suggests selecting an image (600) to be rotated and selecting an image (602) not to be rotated and therefore Martinez suggests the claim limitation of the selection means for selecting an image (See Figures 6A-6C). Martinez teaches selecting an image object such as the window 600 (Figures 6A-6C) to be rotated and not selecting the other image object such as 602. The image objects 600 and 602 are separate image objects, i.e., the image object 602 just overlays on the window 600, but not a part of the window and therefore the image objects 600 and 602 constitute a plurality of image objects as claimed. Martinez therefore teaches rotating one of the plurality of the image objects while not rotating one of the plurality of the image objects.

One having the ordinary skill in the art would have been motivated to do this because it would have provided a selection means so that a particular image can be selected to be rotated while other images remain unchanged in response to the display screen orientation (See Martinez Figures 6A-6C) and selection means so that user can manipulate the selected image object (*Hoshino Figs. 40-46 and column 19-20; Robbins teaches the means of selecting an image displayed on a window of a plurality of separate images on a plurality of windows configured to be displayed on the display screen; Robbins Figs. 1-2 and column 3-4*).

However, Martinez, Hoshino and Robbins are silent to the claim limitation of "the posture detecting means comprising a three axis-gyro sensor."

Andrews discloses a posture detecting means comprising a three axis-gyro sensor (column 7, lines 24-28).



It would have been obvious to have incorporated a three axis-gyro sensor of Andrews to the Martinez, Hoshino and Robbins's display device because Martinez discloses posture detecting means for detecting an angular component of a change of posture of the display screen (e.g., Martinez figures 5A-10; column 5, lines 5-39) and therefore suggests the use of a three-axis gyro sensor or other motion sensors.

One of the ordinary skill in the art would have been motivated do this to accurately measure the angular posture of the display device (Martinez figures 5A-10; column 5, lines 5-39) using the three orthogonal sensors (Ignagni column 11, lines 15-31).

Claim 2:

Claim 2 recites all the limitations of claim 1 and adds the limitation of a plurality of windows. Martinez clearly teaches a plurality of windows (e.g., figures 5A-5C; column 4, lines 40-50; column 5, lines 40-67; column 6, lines 1-67; column 7, lines 1-20).

Claim 3:

Martinez teaches an information processing apparatus (figure 2) comprising:

A display screen (e.g., figures 4A-4D; column 3, lines 5-25);

Posture detecting means for detecting an angular component of a change of posture of the display screen (e.g., figure 5A-10; column 5, lines 5-39);

Displaying direction control means for displaying the separate images on said display screen, and for controlling a direction of display of the image by rotating said image (e.g., figures 5A-6C) according to a rotation of the display screen determined by said posture detecting means;

Art Unit: 2672

wherein said displaying direction control means controls the direction of display of said image by rotating said image according to the rotation of the display screen beyond a predetermined (e.g., figure 5A-10; column 4, lines 40-50; column 5, lines 40-67; column 6, lines 1-67; column 7, lines 1-20) and not rotating at least one of the other of the plurality images (See Figures 6A-6C wherein the block 602 is not rotated while the window 600 is rotated according to the orientation of the display screen).

Martinez is silent to “means for setting a first mode in which all of a plurality of separate images configured to be displayed on the display screen are to be rotated, a second mode in which a selected image of the plurality of separate images is to be rotated, and a third mode in which none of the plurality of separate images are to be rotated” and “means for selecting the selected image when the second mode is set.”

Hoshino teaches the claim limitation of “means for setting a first mode in which all of a plurality of separate images configured to be displayed on the display screen are to be rotated, a second mode in which a selected image of the plurality of separate images is to be rotated, and a third mode in which none of the plurality of separate images are to be rotated” (*See Figs. 40-46 in relation to Figs. 1-39 and the corresponding specification for a plurality of windows 350 shown in Figs. 45-46 are rotated in accordance with the operating buttons 300a-300d of Fig. 40 wherein the rotation of the images depend upon the selection of the operating buttons 300a-300d. Although Fig. 44 only shows one window, multiple windows can be found in Fig. 44 and column 19-20 wherein window B is displayed behind window A on a single display screen 2 and Fig. 46 wherein both windows A and window B are displayed on a single display screen 2. The windows A and B in the single display screen 2 are rotated together by means of the operating*

Art Unit: 2672

*buttons 300a-300d and a particular window is rotated by means of the picture direction change buttons 354a-354d and the selector button 355 and the rotate button 356 of Fig. 43 to rotate a particular window 350 displayed on Fig. 46, no rotation takes place while no selection request whatsoever on the display screen window 2 or the windows A, B inside the display screen window 2 being made by the user to rotate the images. Moreover, each window has a single image or a plurality of images such as those shown in Fig. 7c). Hoshino also teaches "means for selecting the selected image when the second mode is set" (Selecting the image in window A when the second mode is set, i.e., when the rotation selection is placed on a particular window rather than being placed on the display screen 2).*

It would have been obvious to one of ordinary skill in the art to have incorporated the Hoshino's selection means into the Martinez's display device because Martinez suggests selecting an image (600) to be rotated and selecting an image (602) not to be rotated and therefore Martinez suggests the claim limitation of the selection means for selecting an image (See Figures 6A-6C). Martinez teaches selecting an image object such as the window 600 (Figures 6A-6C) to be rotated and not selecting the other image object such as 602. The image objects 600 and 602 are separate image objects, i.e., the image object 602 just overlays on the window 600, but not a part of the window and therefore the image objects 600 and 602 constitute a plurality of image objects as claimed. Martinez therefore teaches rotating one of the plurality of the image objects while not rotating one of the plurality of the image objects.

One having the ordinary skill in the art would have been motivated to do this because it would have provided a selection means so that a particular image can be selected to be rotated while other images remain unchanged in response to the display screen orientation (See Martinez

Art Unit: 2672

Figures 6A-6C) and selection means so that user can manipulate the selected image object (*Hoshino Figs. 40-46 and column 19-20; Robbins teaches the means of selecting an image displayed on a window of a plurality of separate images on a plurality of windows configured to be displayed on the display screen; Robbins Figs. 1-2 and column 3-4*).

However, Martinez, Hoshino and Robbins are silent to the claim limitation of “the posture detecting means comprising a three axis-gyro sensor.”

Andrews discloses a posture detecting means comprising a three axis-gyro sensor (column 7, lines 24-28).

It would have been obvious to have incorporated a three axis-gyro sensor of Andrews to the Martinez, Hoshino and Robbins’s display device because Martinez discloses posture detecting means for detecting an angular component of a change of posture of the display screen (e.g., Martinez figures 5A-10; column 5, lines 5-39) and therefore suggests the use of a three-axis gyro sensor or other motion sensors.

One of the ordinary skill in the art would have been motivated do this to accurately measure the angular posture of the display device (Martinez figures 5A-10; column 5, lines 5-39) using the three orthogonal sensors (Ignagni column 11, lines 15-31).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 3 except additional claimed limitation that the displaying direction control means controls the direction of display of said image by rotating said image when the display screen remains rotated beyond the predetermined range after a predetermined time. However, Martinez further discloses the

Art Unit: 2672

claimed limitation that the displaying direction control means controls the direction of display of said image by rotating said image when the display screen remains rotated beyond the predetermined range after a predetermined time (e.g., figure 10; column 4, lines 40-50; column 5, lines 40-67; column 6, lines 1-67; column 7, lines 1-20).

Claim 5:

The claim 5 encompasses the same scope of invention as that of claim 1 except additional claimed limitation that the displaying direction control means controls the direction of display of said selected image by rotating said selected image according to the rotation of the display screen beyond a predetermined range. However, Martinez further discloses the claimed limitation that the displaying direction control means controls the direction of display of said selected image by rotating said selected image according to the rotation of the display screen beyond a predetermined range (e.g., figure 10; column 4, lines 40-50; column 5, lines 40-67; column 6, lines 1-67; column 7, lines 1-20).

Claim 6:

The claim 6 encompasses the same scope of invention as that of claim 5 except additional claimed limitation that the displaying direction control means controls the direction of display of said selected image by rotating said selected image when the display screen remains rotated beyond the predetermined range after a predetermined time.

However, Martinez further discloses the claimed limitation that the displaying direction control means controls the direction of display of said selected image by rotating said selected image when the display screen remains rotated beyond the predetermined range after a

Art Unit: 2672

predetermined time (e.g., figure 10; column 4, lines 40-50; column 5, lines 40-67; column 6, lines 1-67; column 7, lines 1-20).

5. Claims 7-12:

The claims 7-12 are a rephrasing of claims 1-6 in a method form, respectively. The claims are rejected for the same reason as set forth in claim 1-6.

6. Claims 13-17:

The claims 13-17 encompass the same scope of invention as those of claims 1, 3-6, except additional claimed limitation of “the medium for storing the program”. However, Martinez further discloses the claimed limitation of “the medium for storing the program” (e.g., figure 2; column 7, lines 20-35).

Claim 18:

Andrews and Ignagni further disclose three orthogonal gyro sensors mounted on a subject object to measure motion or angular positions of the subject object (Andrews column 7, lines 24-28 and Ignagni column 11, lines 15-31).

It would have been obvious to have incorporated a sensor assembly comprising three orthogonal gyro sensors of Andrews and Ignagni to the Martinez, Hoshino and Robbins’s display device because Martinez discloses posture detecting means for detecting an angular component of a change of posture of the display screen (e.g., Martinez figures 5A-10; column 5, lines 5-39) and therefore suggests the use of a three-axis gyro sensor or other motion sensors.

One of the ordinary skill in the art would have been motivated do this to accurately measure the angular posture of the display device (Martinez figures 5A-10; column 5, lines 5-39) using the three orthogonal sensors (Ignagni column 11, lines 15-31).

Claim 19:

Martinez further discloses the posture detecting means being disposed in a display section that includes the display screen (Martinez figures 5A-10; column 5, lines 5-39) and Andrews and Ignagni disclose three orthogonal gyro sensors mounted on a subject object to measure motion or angular positions of the subject object (Andrews column 7, lines 24-28 and Ignagni column 11, lines 15-31).

It would have been obvious to have incorporated a three axis-gyro sensor of Andrews to substitute the Martinez's posture detecting means in the Martinez, Hoshino and Robbins's display device because Martinez discloses posture detecting means for detecting an angular component of a change of posture of the display screen (e.g., Martinez figures 5A-10; column 5, lines 5-39) and therefore suggests the use of a three-axis gyro sensor or other motion sensors.

One of the ordinary skill in the art would have been motivated do this to accurately measure the angular posture of the display device (Martinez figures 5A-10; column 5, lines 5-39) using the three orthogonal sensors (Ignagni column 11, lines 15-31).

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

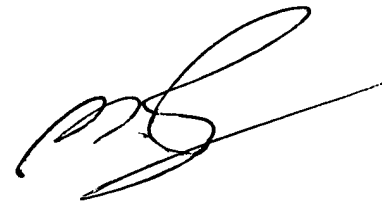
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



A handwritten signature in black ink, appearing to be 'MR' followed by a stylized flourish.

**MICHAEL RAZAVI**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**